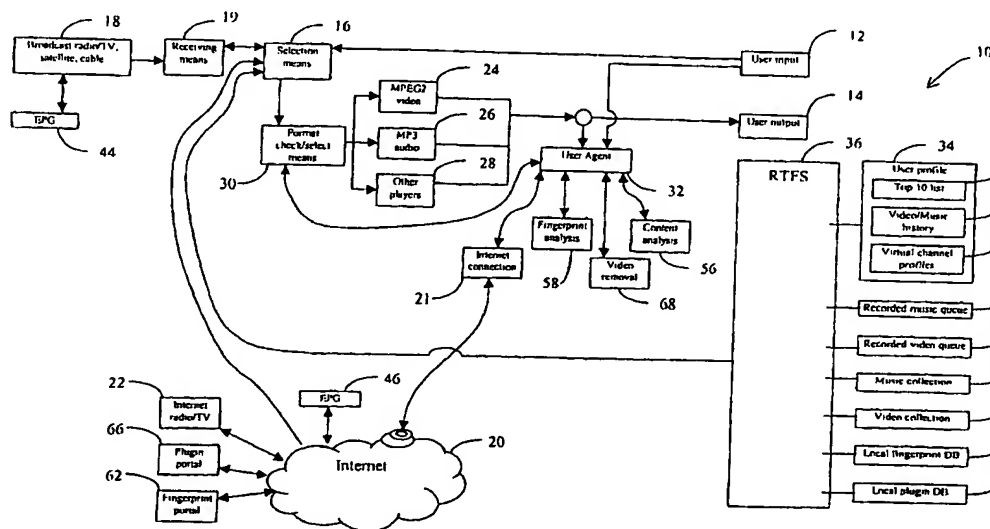


(10) International Publication Number
WO 2004/061545 A3

[Continued on next page]

(54) Title: REAL-TIME RECORDING AGENT FOR STREAMING DATA FROM AN INTERNET



(57) **Abstract:** A personal recorder/playback system (10) includes a recording agent (32) configured to transparently receive multiple audio/visual streams from analog and/or digital sources. The streams are temporarily stored in queues (52,54) for subsequent analysis. The streams, after analysis, are either discarded, stored permanently in an audio/visual collection (48,50), or used to improve the quality of previously stored streams in the collection. The recording agent (32) provides features such as virtual channels (42) and a "top-ten" list (38) of most popular stored audio/visual streams.



— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(88) Date of publication of the international search report:
16 September 2004

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB2004/000013A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04N5/445 H04N5/76

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H04N H04H

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/040475 A1 (FICCO MICHAEL ET AL) 4 April 2002 (2002-04-04)	1, 2, 4, 6-11, 13-19
Y	abstract paragraphs '0006!, '0008!, '0021! - '0023!, '0025!, '0030!, '0031!, '0035! paragraphs '0038!, '0039!, '0041!, '0094!, '0095!, '0103!, '0104!, '0117!, '0126! - '0128! paragraphs '0139!, '0140!, '0152!, '0156!, '0161!, '0183!, '0187!, '0195!, '0199! paragraphs '0208!, '0217!, '0219!, '0220!, '0255!, '0381! figures 2, 10 ----- -/--	3, 5, 12, 20, 21

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- *G* document member of the same patent family

Date of the actual completion of the international search

26 July 2004

Date of mailing of the international search report

03/08/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Schreib, F

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y A	WO 02/102079 A (GROTUIT MEDIA INC) 19 December 2002 (2002-12-19) page 4, line 25 - line 29 page 7, line 16 - line 19 page 12, line 1 - line 3 page 17, line 25 - page 18, line 23 page 24, line 13 - line 18 page 28, line 5 - line 19 page 34, line 26 - page 35, line 2 page 43, line 1 - line 3 page 46, line 10 - line 30 page 51, line 22 - page 52, line 4 page 62, line 15 - page 64, line 2 figures 1,2	5,12,21 1-4, 6-11, 13-20
Y	US 2002/099555 A1 (ABRAMS STEVEN ET AL) 25 July 2002 (2002-07-25) paragraph '0035!	3,20
X A	WO 01/67756 A (GEN INSTRUMENT CORP) 13 September 2001 (2001-09-13) abstract page 1, line 6 - line 15 page 2, line 25 - page 7, line 16 page 9, line 7 - line 12 page 11, line 3 - line 8 page 13, line 20 - page 14, line 7 page 19, line 2 - line 4 figure 1	1,10,17 2-9, 11-16, 18-21
A	WO 98/07273 A (SRT INC) 19 February 1998 (1998-02-19) page 5 - page 6	6,13

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No.
PCT/IB2004/000013

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2002040475	A1	04-04-2002	US 2002056102 A1	09-05-2002
			US 2002092021 A1	11-07-2002
			BR 0106093 A	07-05-2002
			BR 0106721 A	11-06-2002
			BR 0106723 A	21-05-2002
			EP 1269748 A2	02-01-2003
			EP 1214841 A1	19-06-2002
			WO 0182588 A2	01-11-2001
			WO 0184826 A2	08-11-2001
			WO 0182600 A2	01-11-2001
			US 2001033343 A1	25-10-2001
			US 2001033736 A1	25-10-2001
			BR 0106083 A	21-05-2002
			BR 0106084 A	21-05-2002
			BR 0106092 A	21-05-2002
			EP 1216573 A2	26-06-2002
			EP 1236333 A2	04-09-2002
			WO 0182567 A2	01-11-2001
			WO 0182598 A2	01-11-2001
			WO 0182589 A1	01-11-2001
			US 2001052130 A1	13-12-2001
			US 2002054750 A1	09-05-2002
			US 2001036254 A1	01-11-2001
WO 02102079	A	19-12-2002	US 2002120925 A1	29-08-2002
			EP 1421792 A1	26-05-2004
			WO 02102079 A1	19-12-2002
			US 2003093790 A1	15-05-2003
			US 2003163823 A1	28-08-2003
US 2002099555	A1	25-07-2002	US 2002143530 A1	03-10-2002
			WO 03003628 A1	09-01-2003
			US 2002116195 A1	22-08-2002
			US 2002082731 A1	27-06-2002
			US 2002082837 A1	27-06-2002
WO 0167756	A	13-09-2001	AU 4731401 A	17-09-2001
			CA 2402318 A1	13-09-2001
			CN 1428046 T	02-07-2003
			DE 10195884 T0	27-03-2003
			ES 2203343 A1	01-04-2004
			GB 2376128 A	04-12-2002
			JP 2003526291 T	02-09-2003
			TW 504930 B	01-10-2002
			WO 0167756 A2	13-09-2001
			US 2003068154 A1	10-04-2003
			US 2001051037 A1	13-12-2001
			US 2002009285 A1	24-01-2002
WO 9807273	A	19-02-1998	US 5999688 A	07-12-1999
			AU 736013 B2	26-07-2001
			AU 4056397 A	06-03-1998
			BR 9711156 A	11-01-2000
			CA 2263260 A1	19-02-1998
			EP 0917803 A1	26-05-1999
			JP 2001503933 T	21-03-2001
			WO 9807273 A1	19-02-1998